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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/761,624 | 01/17/2001 | Alan L. Everett | 29627.0006 | 5312 |

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EXAMINER

KIM, CHRISTOPHER S

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3752

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/761,624

Applicant(s)

EVERETT, ALAN L.

Examiner

Christopher S. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-16 is/are pending in the application.
- 4a) Of the above claim(s) 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-12 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on September 27, 2004 and November 24, 2004 have been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1-5, 9-12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter (5,765,730).

With respect to claims 1, 3-5, 9-11 and 16, Richter discloses a dispensing tip comprising: a body (section B and downstream thereof); an inlet (inlet to section B); an outlet 37; a fluid conducting passage 35; a first portion B; a second portion (between B and outlet 37); zirconia ceramic material (column 6, line 37). The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed

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structural limitations. The recitation of "injection molded" has been considered a produce by process limitation. MPEP 2113 states:

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)....

The functional recitation "such that the diameter of a drop of viscous fluid leaving the outlet is directly proportional to the ratio of the axial length of the second portion to the axial length of the first portion" appears to describe a condition of operation and only requires the ability to so perform. Additionally, the claims do not define the axial length of the first and second portions. Therefore, any arbitrary length of Richter's first and second axial lengths can be defined to meet applicant's limitation.

Richter does not disclose the axial length of the first portion being at least three times the axial length of the second portion and the inlet having a diameter at least four times the diameter of the outlet. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided such a dimensional relationship, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

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With respect to claims 2 and 12, Richter discloses the limitations of the claimed invention with the exception of the second portion/outlet diameter range. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a second portion/outlet having a diameter of about 0.003 inch to about 0.030 inch to enable dispensing of fine quantities, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomasello (4,622,714).

Tomasello discloses a dispensing tip comprising: a body 16, 18; an inlet 14; an outlet 20; a fluid conducting passage (passage through 16 and 18); a first portion 16a, 16b; a second portion 18. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The working fluid of Tomasello is air rather than viscous fluid. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the device of Tomasello to dispense viscous fluid for its low divergence and high efficiency (column 4, lines 38-41).

The functional recitation "such that the diameter of a drop of viscous fluid leaving the outlet is directly proportional to the ratio of the axial length of the second portion to the axial length of the first portion" appears to describe a condition of operation and only requires the ability to so perform. Additionally, the claims do not define the axial length

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of the first and second portions. Therefore, any arbitrary length of Tomasello's first and second axial lengths can be defined to meet applicant's limitation.

Tomasello does not disclose the axial length of the first portion being at least three times the axial length of the second portion and the inlet having a diameter at least four times the diameter of the outlet. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided such a dimensional relationship, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

5. Claims 1, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heron et al. (4,878,785) in view of Vickers (4,342,425).

With respect to claim 1, Heron et al. discloses a dispensing tip comprising: a body (having sections 3, 5, 6); an inlet (inlet to section 5); an outlet 6; a fluid conducting passage 3, 5; a first portion 5; a second portion 3. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

Heron et al. does not disclose the working fluid being a viscous fluid. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the device of Heron et al. to dispense viscous fluid for its low wear characteristics (column 1, lines 7-8).

The functional recitation "such that the diameter of a drop of viscous fluid leaving the outlet is directly proportional to the ratio of the axial length of the second portion to the axial length of the first portion" appears to describe a condition of operation and only requires the ability to so perform. Additionally, the claims do not define the axial length of the first and second portions. Therefore, any arbitrary length of Heron's first and second axial lengths can be defined to meet applicant's limitation.

Heron et al. does not disclose the axial length of the first portion being at least three times the axial length of the second portion and the inlet having a diameter at least four times the diameter of the outlet. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided such a dimensional relationship, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With respect to claims 6 and 7, Heron et al. discloses the limitations of the claimed invention with the exception of a protective housing including a standoff. Vickers discloses a housing 106 and a standoff 108. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have incorporated the housing and standoff of Vickers to the device of Heron et al. to enable positioning of the device.

6. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter (5,765,730) in view of Vickers (4,342,425).

Richter discloses the limitations of the claimed invention with the exception of a protective housing including a standoff. Vickers discloses a housing 106 and a standoff 108. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have incorporated the housing and standoff of Vickers to the device of Richter to enable positioning of the device.

Response to Arguments

7. Applicant's arguments filed September 27, 2004 have been fully considered but they are not persuasive.

Applicant argues that "the first portion being at least three times the axial length of the second portion" was disclosed in the application as originally filed because it disclosed the axial distance from end face 32 to intermediate location 24 being 0.292 inch and the axial length of passage portion being 0.085. In light of applicant's argument, the claims have been considered in the following manner. Claims 1 and 9 recite an open ended range of "at least three times..." while applicant's disclosure teaches specific values. Claims 1 and 9 are enabled and supported, by the original disclosure, only to the extent of the specific values disclosed. Similarly, the diameters of the inlet and outlet are enabled and supported, by the original disclosure, only to the extent of the specific ranges of values disclosed.

In response to applicant's argument that Richter is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was

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concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Richter is analogous art. While applicant discloses a particular embodiment and best mode, applicant's claims are directed to a tip for dispensing fluid. The recitation "precision" in the preamble has been considered as defining a name of the device in order to avoid indefiniteness under 35 USC 112, second paragraph for recitation of a relative term. Richter too discloses a nozzle for dispensing fluid. Additionally, it is noted that applicant's specification recites, on page 9,

While an embodiment of the present invention has been described in detail, that is done for the purpose of illustration, not limitation.

Applicant argues that Richter discloses a passage 35, and therefore, the inlet must be considered to be inlet 31. Applicant's claims utilize the transitional phrase "comprising" which does not preclude the passage 35 of Richter. The inlet of Richter is considered to be the inlet to portion B.

Applicant argues that Tomasello does not disclose a "first or converging portion of the fluid conducting passage being in the shape substantially of a frustum of a right circular cone[cone]." See figure 1 of Tomasello. Tomasello discloses a "...a shape **substantially** of a frustum of a right circular cone..." (emphasis added).

In response to applicant's argument that Tomasello is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed

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invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Tomasello is analogous art. While applicant discloses a particular embodiment and best mode, applicant's claims are directed to a tip for dispensing fluid. The recitation "precision" in the preamble has been considered as defining a name of the device in order to avoid indefiniteness under 35 USC 112, second paragraph for recitation of a relative term. Tomasello too discloses a nozzle for dispensing fluid. Additionally, it is noted that applicant's specification recites, on page 9,

While an embodiment of the present invention has been described in detail, that is done for the purpose of illustration, not limitation.

Applicant argues that the rejection over Vickers is improper for the same reasons given with respect to the Richter reference. The propriety of the rejection over Vickers is similar to that of the rejection over Richter as given above.

Conclusion

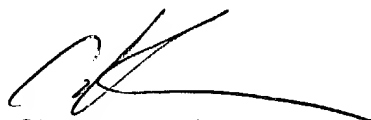
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (703) 308-8336. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (703) 308-1272. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



Christopher S. Kim
Primary Examiner
Art Unit 3752

CK
November 28, 2004